



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3391-025
Job Sheet 168939



Part No: D3391-025

Job Qty: 1 ea

Part Name: Aft Tube Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/27/17

Job Tracking No:

Due Date: 12/8/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Customer: Falcon Aviation Services (CFALC01)

PO Box 62030 Abu Dhabi, United Arab Emirates ph:011 971 50 445 0187 fx:+971 2 444 0022.

Note: DWG REV J SHEETS 9,10,11 IPP Rev B 06-02-07 ECN773 dwg rev. D EC IPP Rev:C 06-03-28 Update
Manuf. Instructions JLM IPP rev D 07.03.20 revF dwg EC IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified
by: DD IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC IPP Rev:G 08-09-10 revH as per dwg DD verified
by:EC IPP Rev:H 11.11.14 AS PER REV.I DD verified by:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/7/17	0.00	0.00	Start Up Crosstubes		<i>DMF</i>
100	Mori Seiki	1 pcs		12/7/17	2.49	4.17	Mori Seiki TL-40		<i>DMF</i>
110	QC	1 pcs		12/7/17	0.00	0.00	QC2		<i>DMF</i>
112	QC	1 pcs		12/7/17	0.00	0.00	QC5		<i>38</i>
120	CNC Vertical Machining	1 pcs		12/7/17	0.00	2.63	HAAS 1		<i>9-88</i>
130	QC	1 pcs		12/7/17	0.00	0.00	QC2		<i>17-12-104</i>
140	QC	1 pcs		12/7/17	0.00	0.00	QC8		<i>17-12-11</i>
150	Skidtubes	1 pcs		12/7/17	0.00	1.03	Skidtubes		<i>17-12-12</i>
160	CNC Bend Skidtubes	1 pcs		12/7/17	0.00	1.33	CNC Bend Skidtube		<i>17-12-12</i>
170	QC	1 pcs		12/7/17	0.00	0.00	QC5		<i>17-12-21</i>
180	Skidtubes	1 pcs		12/7/17	0.00	1.03	Skidtubes		<i>17-12-21</i>
190	QC	1 pcs		12/7/17	0.00	0.00	QC5		<i>17-12-21</i>
200	HandFinish	1 pcs		12/7/17	0.00	0.58	HandFinish1		<i>17-12-21</i>
210	QC	1 pcs		12/7/17	0.00	0.00	QC7		<i>17-12-21</i>
220	Skidtubes	1 pcs		12/7/17	0.00	1.41	Skidtubes		<i>17-12-21</i>
230	QC	1 pcs		12/7/17	0.00	0.00	QC5		<i>17-12-21</i>
235	HandFinish	1 pcs		12/7/17	0.00	0.58	HandFinish2		<i>17-12-21</i>
240	SprayPaint	1 pcs		12/7/17	0.00	0.25	Spray Paint		<i>17-12-21</i>
250	QC	1 pcs		12/7/17	0.00	0.00	QC14		<i>17-12-21</i>
260	HandFinish	1 pcs		12/8/17	0.00	0.58	HandFinish4		<i>17-12-21</i>
270	QC	1 pcs		12/8/17	0.00	0.00	QC5		<i>17-12-21</i>
280	Packaging	1 pcs		12/8/17	0.00	0.00	Packaging3		<i>17-12-21</i>
290	QC21-SA	1 Ea		12/8/17	0.00	0.00	QC21		<i>17-12-21</i>

Part Op 100 - Turn as per Folio FA599 Rev: *AA* & Dwg D3391 Rev: *J* ***ensure steady rest is turning true*** *****REMOVE
Descriptions: STEADY REST AND MACHINIG MARKS****

120 - 1-Machine as per Folio FA 599 Rev: *AA* & Dwg D3391 Rev: *J*

140 - ***INSPECT INSIDE BORE***

150 - 1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

160 - Form as per Dwg D3391 Using Bend Prog 3391025 *4.3*

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS	
Part No. _____		Rework ☐		Skid-tube	
NCR No. _____		Scrap ☐		Machining	
		Use-as-is ☐		Thermoforming	
		Suspected Unapproved ☐		Large Fat	
Date : _____	Step #: _____			QTY Effect _____	
Description Work Order Deviation					
Root Cause					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cur ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/I ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incom ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incon ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐		
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐				
OTHER : _____					

DART AEROSPACE
S014212
Aft Tube Assembly

PART NO: D3391 - 025

Revision:

Operation:

Change No:

Start up Operation

Mfg Date: 11/27/17

Job No: 168939

DART AEROSPACE LTD.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632 - 5200
Email: sales@dartaero.com
www.dartaerospace.com

180 - 1-Open Aft cap pilot hole to .208" as per Dwg D3391 2-Drill float bag holes using DT8809 as per Dwg D3391 (Holes marked "A" Only. 3-Drill wearplate holes as per Dwg D3391 using DT8878 (Mid Tube) & DT8217 Wearplate Jig. *****Do Not Open To Finished Size***** 4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 previously drilled aft wearplate holes. 5-Open wearplate holes to 0.297" and c'bore as per dwg D3391 6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391. 8- Scribe batch # on fwd end

220 - 1- Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: M137712 exp. date: 2018/01 cure time 12hrs as per QSI0015 2- Grind crossbolts flush 3- Back drill using #9 drill 4- Touchup Magnabond 5- Deburr

235 - AND REALODINE AS PER PAR09-043

240 - PRIME AS PER DWG AND QSI005 4.2.1.3.3

260 - 1-Install inserts as per Dwg D3391 2-Install Aft Cap as per Dwg D3391 A/ R Sikaflex-241/-291 _____
Sikaflex expiry date: _____ 3- INSTALL WEARPLATES AS PER DWG

290 - 5- Detail DD, open (5) forward wearplate holes 0.375", then use DT10247 and drill holes for nutplates and c'sink. 6-Open wearplate holes to 0.297" and c'bore as per dwg D3391. ***SIX FARTHEST AFT HOLES ONLY*** 7-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391. 8-Deburr 9- Scribe batch # on fwd end

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D6014-090 <u>B1394126</u>	1	32	0	0
220-Skidtubes	D3670-4-200 <u>B165393</u>	4	78	0	0
260-HandFinish	ALS4-1032-130 <u>S007279</u>	8	11,934	0	0
	D4095-047 <u>F164735</u>	1	2	0	0
	D4095-049 <u>M161988-126</u>	1	28	0	0
	MS20601-AD4W3 <u>S016824</u>	12 <u>(10)</u>	47	0	0
	MS20601-AD4W7 <u>M137148</u>	8 <u>(6)</u>	305	0	0
	MS21075L5 <u>FM 138042</u>	10 <u>(10)</u>	672	0	0
270-QC	ALS4-1032-225 <u>F1135498-2</u>	4	1,836	0	0
	AN3C4A <u>S000533</u>	6	993	0	0
	AN3C5A <u>S019396</u>	4	280	0	0
	D2646 <u>F165010</u>	1	152	0	0
	D3672-1 <u>F150074</u>	2	1,741	0	0
	NAS1149C0332R <u>FM138408-110</u>		3,161	0	0

Part Specifications

Specifications could not be found.

Plex 11/27/17 11:11 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

DART AEROSPACE LTD		Work Order: 168935
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: J	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.0	✓		Tape	
3.500	+/-0.010	3.502	✓		Vernier	
Ø3.200	+/-0.010	3.202	✓			
Ø3.750	+/-0.010	3.75	✓			
30° x 0.060 chamfer	+/-0.010	30° x 0.10	✓			
88.93	+/-0.030	88.93	✓		Tape	

Measured by: RMP	Date: 2017-11-27
Audited by: D.A.	Date: 17-12-11

HAAS Section						
1.526	+0.000/-0.030	1.508	✓		Vernier	
7.500	+/-0.010	7.501	✓		Tape Vernier	
27.750	+/-0.010	27.750	✓		Tape	
31.750	+/-0.010	31.750	✓		Tape	
35.250	+/-0.010	35.250	✓		Tape	
3.300	+/-0.010	3.299	✓		micrometer	
0.200	+/-0.010	0.200	✓		Vernier	
3.520	+/-0.010	3.522	✓		micrometer	
0.687	+0.010/-0.000	0.689	✓		Vernier	
R0.062	+/-0.010	R0.062	✓		Gabori	
Ø0.484	+0.005/-0.001	Ø0.485	✓		Pin gage	

Measured by: M.M. Kulk	Date: 2017/12/01
Audited by: D.A.	Date: 17-12-11

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	
M	16.06.23	Dimensions updated per Rev J	KJ	

DQA: _____ Date: _____



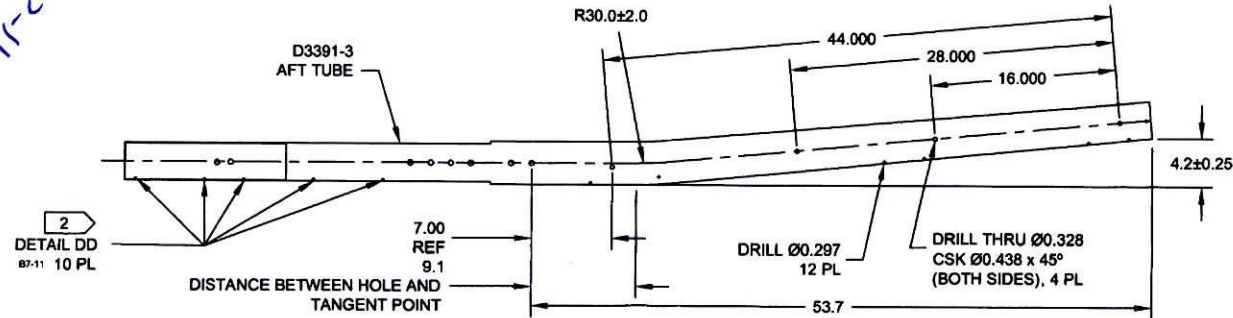
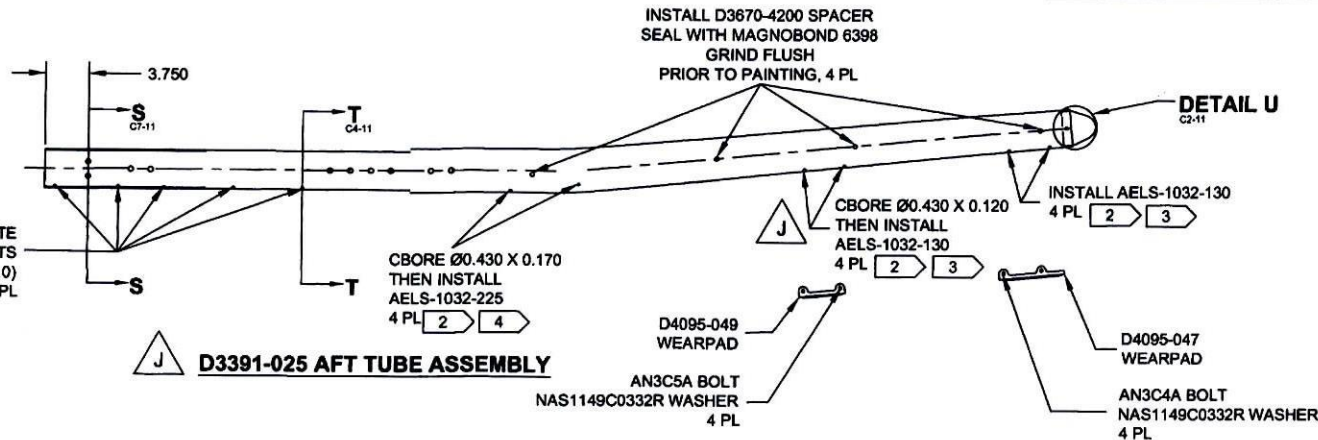
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

SHOP COPY
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 16897945
1711-27



D3391-025 AFT TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-025	AFT TUBE ASSEMBLY
1	D2646	AFT CAP
1	D3391-3	AFT TUBE
4	D3670-4200	SPACER
2	D3672-1	WASHER
1	D4095-049	WEARPAD
1	D4095-047	WEARPAD
8	AELS-1032-130	INSERT
4	AELS-1032-225	INSERT
6	AN3C4A	BOLT
4	AN3C5A	BOLT
20	MS20601AD4	RIVET, BLIND
10	MS21075L5	NUT PLATE FLOATING
10	NAS1149C0332R	WASHER

NOTES:

- 1) COAT ALL EXPOSED FASTENERS WITH LPS "LPS PROCYON"
- 2) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 AND Ø0.375 HOLES FOR WEARSHOE INSERTS AND NUTPLATES. CBORE AS NOTED AND INSTALL INSERT/NUTPLATES EXCEPT WHERE INDICATED. USE NUT PLATE DRILL JIG IF REQUIRED.
- 3) ENSURE WALL THICKNESS IS BETWEEN 0.070 AND 0.130 BEFORE INSTALLING INSERT
- 4) ENSURE WALL THICKNESS IS BETWEEN 0.130 AND 0.225 BEFORE INSTALLING INSERT

RELEASED
2016-04-28

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.	SA	D3391	SHEET 9 OF 11
APPROVED	BL	TITLE	SCALE
DE APPR.	★	AFT TUBE ASSEMBLY	NTS
DATE	16.01.14	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____

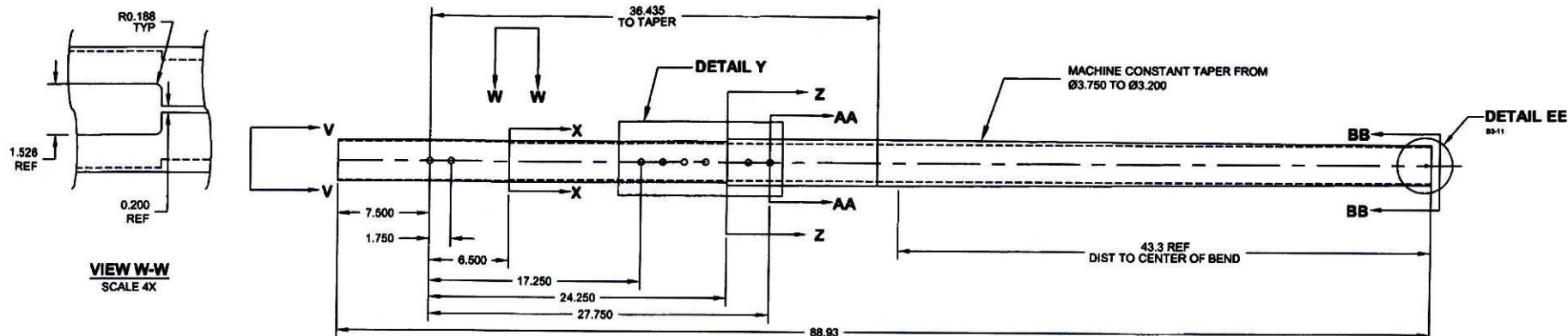


WORK ORDER NON-CONFORMANCE / UPDATE

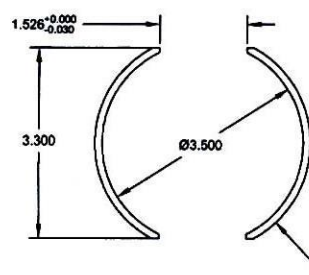
QA Closed: _____ Date: _____

Work Order update only ☐

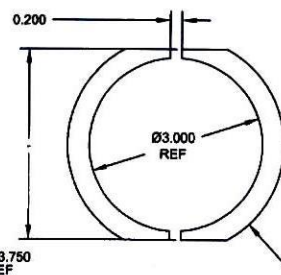
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER : _____					



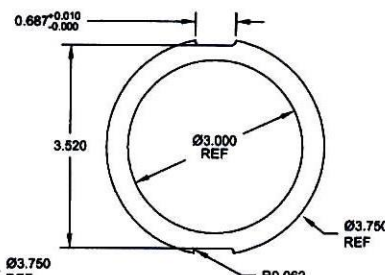
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D8014-090)



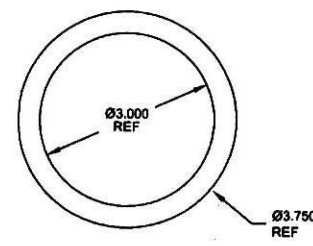
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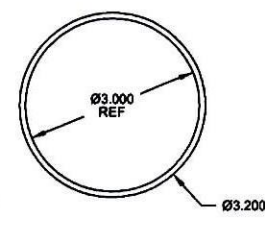
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SCALE 4X



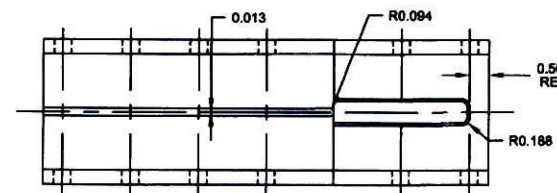
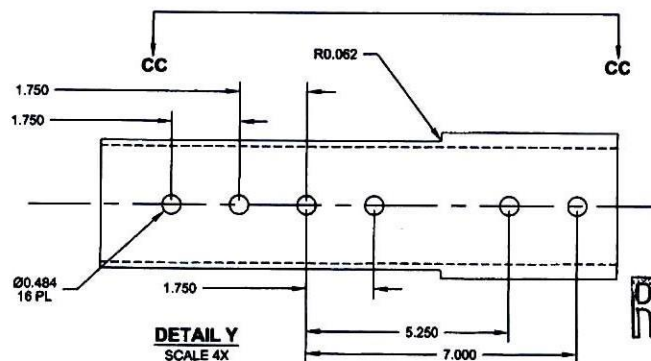
SECTION Z-Z
SCALE 4X



SECTION AA-AA
SCALE 4X



SECTION BB-BB
SCALE 4X



VIEW CC-CC

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.	<i>[Signature]</i>	D3391	SHEET 10 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	412 FLOAT SKIDTUBE	NTS
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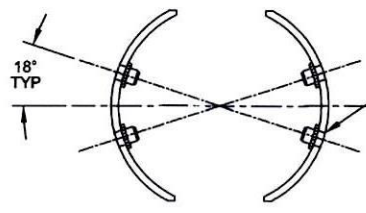


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

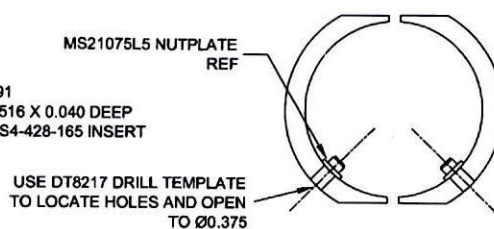
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					



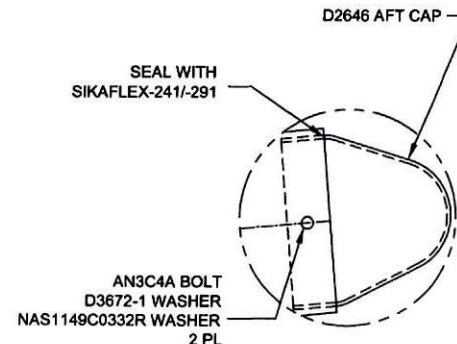
SECTION S-S D6-8.9
SCALE 5X

DRILL Ø0.391
CBORE Ø0.516 X 0.040 DEEP
INSTALL ALS4-428-165 INSERT
4 PL

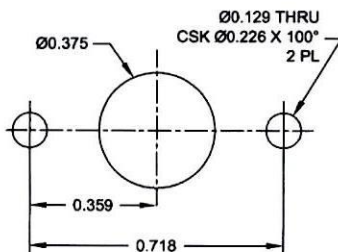


SECTION T-T D6-8.9
SCALE 5X
5 PL

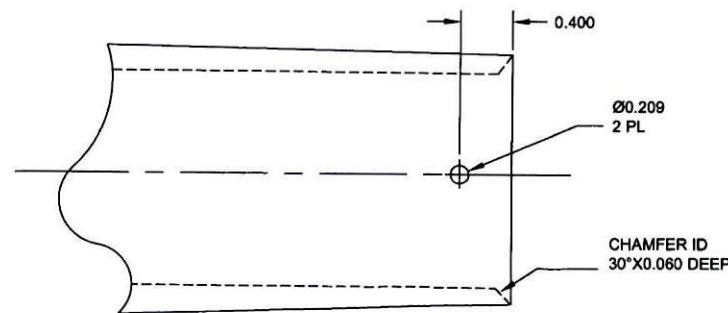
USE DT8217 DRILL TEMPLATE
TO LOCATE HOLES AND OPEN
TO Ø0.375



DETAIL U D1-8.9
SCALE 5X



DRILLING DETAIL DD
SCALE 10X
97-8.9



DETAIL EE
SCALE 2X
D1-11

NOTES:
1) USE INDUSTRY STANDARD NUT PLATE DRILL JIG IF REQUIRED.

RELEASED
2016-04-28

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.		D3391	SHEET 11 OF 11
APPROVED		TITLE	SCALE
DE APPR.		AFT TUBE ASSEMBLY	NTS
DATE	16.01.14	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					